

Claims

1. Method for continuous coating of cores with a dragée-making apparatus comprising at least one rotatably driven drum (1) in which the product (5) is coated with one or several coating materials or is subjected to other treatment processes, for example spraying, drying and the like, **characterized in** that the charge of the product (5) to be processed is divided at the inlet side of the drum into individual charges and transported through the drum (1, 91) in a cyclical transport mode and processed in individual, separate processing chambers (7-13; 72-74) in the drum (1, 91).
2. Method according to claim 1, **characterized in** that the cores of the product (5) to be coated are subjected to at least one process step in individual processing chambers (7-13; 72-74) which are separated in the axial direction of the drum (1, 91), and that the product (5) residing in a respective processing chamber (7-13; 72-74) is transported in a cyclical transport mode from the one processing chamber (7-13; 72-74) into the additional adjacent processing chamber (7-13; 72-74).
3. Method according to claim 1 or 2, **characterized in** that the product (5) is transported from the one processing chamber (7-13; 72-74) to the next by a longitudinal conveyor (3, 76) which conveys in the axial direction of the drum (1, 91).
4. Method according to one of the claims 1 to 3, **characterized in** that the process steps "spraying", "powdering", "distributing the coating materials", and "drying".
5. Method according to one of the claims 1 to 4, **characterized in** that the volume of the individual processing chambers (7-13; 72-74) is adjustable.
6. Method according to one of the claims 1 to 5, **characterized in** that the axial length of the individual processing chambers (7-13; 72-74) is adjustable.
7. Method according to one of the claims 1 to 6, **characterized in** that the transport speed of the

product is adjustable.

8. Apparatus for continuous coating of cores with a dragée-making apparatus comprising at least one rotatably driven drum (1) in which the product (5) is coated with one or several coating materials or is subjected to other treatment processes, for example spraying, drying and the like, **characterized in** that at least one longitudinal conveyor (3, 32; 76) is arranged in the drum (1; 91), with the conveyor (3, 32; 76) transporting the product (5) in a cyclical transport mode in form of individual charges through the drum (1, 91) in the axial direction.

9. Apparatus according to claim 8, **characterized in that** the conveying elements of the longitudinal conveyor form the individual processing chambers (7-13; 72-74) in cooperation with the inner wall of the drum (1, 91).

10. Apparatus according to claim 8 or 9 for carrying out the method according to one of the claims 1 to 6, **characterized in** that the longitudinal conveyor is implemented as a rotatably driven spiral conveyor (32).

11. Apparatus according to one of the claims 8 to 10 for carrying out the method according to one of the claims 1 to 6, **characterized in** that the longitudinal conveyor is implemented as a chain conveyor.

12. Apparatus according to claim 10, **characterized in** that several independently driven spiral conveyors (32a, 32b) are arranged in the drum (1; 91).

13. Apparatus according to one of the claims 8 to 11, **characterized in** that the outer circumference of the longitudinal conveyor forms a rotating gap (38) relative to the inner circumference of the drum (1, 91), with the gap being smaller than the diameter of the cores to be coated.

14. Method for continuous coating of cores with a dragée-making apparatus comprising at least one rotatably driven drum in which the product is coated with one or several coating materials or

is subjected to other treatment processes, for example spraying, drying and the like, **characterized in** that, if necessary, a transition (76) is provided from one chamber (7-13; 72-74) to an adjacent other chamber (72-74).

15. Method according to claim 14, **characterized in** that the transition (76) from one chamber (7-13; 72-74) to the adjacent other chamber (72-74) is provided by opening a passageway in a partition disk (68-71) which separates the chambers.

16. Method according to claim 15, **characterized in** that all passageways in all chambers (7-13; 72-74) are simultaneously opened at a defined point in time.

17. Method according to one of the claims 14 to 16, **characterized in** that the connection between all chambers (7-13; 72-74) is established only temporarily.

18. Apparatus for continuous coating of cores with a dragée-making apparatus comprising at least one rotatably driven drum in which the product is coated with one or several coating materials or is subjected to other treatment processes, for example spraying, drying and the like, **characterized in** that the longitudinal conveyor can be temporarily switched from conveying operation to mixing operation.

19. Apparatus according to claim 18, **characterized in that** the interior space of the drum is divided into a plurality of chambers (72-74) which are closed off from each other, and that if necessary a transition from one chamber (72-74) to an adjacent other chamber (72-74) is provided, in conjunction with conveying the product.

20. Dragée apparatus according to claim 18 or 19, **characterized in that** the chamber (72-74) is formed by the wall of the drum and by two spaced-apart partition disks (68-71) which are non-rotatably connected with the wall (66) of the drum.

21. Apparatus according to one of the claims 18 to 20, **characterized in that** at least one pivoting baffle (76) is arranged in the partition disk (68-71), wherein the pivot axis (77) is

approximately perpendicular to the plane of the drum wall (66) and the free pivoting end is adapted to contact the adjacent partition disk (68-71).

22. Apparatus according to one of the claims 18 to 21, **characterized in that** a corresponding pivoting baffle (76a-76d) is associated with each chamber (72-74) of the drum and that all chambers can be pivoted at the same time.

23. Apparatus according to one of the claims 18 to 22, **characterized in that** the shifting drive comprises a pushrod (79) arranged parallel to the longitudinal axis of the drum, wherein the pushrod (79) is movably guided on the drum wall and non-rotatably connected with one end of a corresponding eccentric lever (86), with the other end of the eccentric lever (86) being connected with the shaft of the pivoting baffle (76).

24. Apparatus according to one of the claims 18 to 23, **characterized in that** the apparatus is capable of carrying out the method according to one or several of claims 14 to 17.

25. Apparatus according to one or several of claims 18 to 23 for carrying out a method according to one or several of claims 14 to 17, **characterized in that** the apparatus is capable of operating according to the method of one or several of claims 1 to 7.